BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	§	Attorney Docket No. **AT9-99-725**
VIKTORS BERSTIS	§	
	§	
Serial No.: **09/466,438**	§	Examiner: **JAMES A. KRAMER**
	§	
Filed: **17 DECEMBER 1999**	§	
	§	
For: **METHOD AND SYSTEM FOR**	§	Art Unit: **3627**
TRIGGERING ENHANCED	§	
SECURITY VERIFICATION IN	§	
RESPONSE TO ATYPICAL	§	
SELECTIONS AT A SERVICE-	§	
ORIENTED USER INTERFACE	§	
TERMINAL	§	

SUPPLEMENTAL APPEAL BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicant reinstates the previously-filed Notice of Appeal (June 28, 2007) and submits this Supplemental Appeal Brief in response to the Notice of Non-Compliant Appeal Brief mailed on September 6, 2007.

This Supplemental Appeal Brief is submitted in support of the Appeal of the Examiner's rejection of Claims 1-6, 8-10, 13-23 and 25 in the above-identified application as set forth in the non-final Office Action dated March 14, 2007. A Notice of Appeal was electronically filed in this case on June 28, 2007 and received in the United States Patent and Trademark Office on June 28, 2007.

Prosecution was re-opened by the Examiner in view of the Reversal/Remand Decision by the Board of Appeals dated September 27, 2006.

REAL PARTY IN INTEREST

The Real Party in Interest in the present Appeal is International Business Machines Corporation, the assignee, as evidenced by the assignment set forth at Reel 010477, Frame 0042.

RELATED APPEALS AND INTERFERENCES

Notice of Appeal for the instant application (U.S. Ser. No. 09/466,438) was first filed on August 28, 2003. The Board of Patent Appeals and Interferences ("Board") issued its Decision on Appeal ("Decision") on September 27, 2006, reversing/remanding the case to the Examiner for further consideration of a rejection pursuant to 37 C.F.R § 41.50(a)(1) (effective September 13, 2004, 69 Fed. Reg. 49960 (August 12, 2004), 1286 Off. Gaz. Pat. Office 21 (September 7, 2004)). The Examiner re-opened prosecution and issued a non-final Office Action on March 14, 2007 ("present Office Action"), from which the instant Appeal is initiated.

STATUS OF THE CLAIMS

Claims 1-25 were originally presented. Claims 7, 11-12 and 24 are cancelled. Claims 1-6, 8-10, 13-23 and 25 stand non-finally rejected by the Examiner following Appeal, as noted in the Present Office Action, and remain on Appeal.

STATUS OF THE AMENDMENTS

No amendment was submitted subsequent to the Present Office Action.

SUMMARY OF THE CLAIMED SUBJECT MATTER

As shown in Figures 1-4, Appellant's invention comprises a method, system, and computer program product for prompting a repeat user of a payment card at an interface terminal with additional security-related questions when the user selects responses that deviate from his or her typical selections.

Independent Claim 1 recites a method for automatically authorizing a remote point of purchase action at a facility which permits such actions. The method comprises the steps of storing selections of goods and/or services made by an authorized user during a previous transaction (Fig. 4, step 409; p. 9, lines 30-34; p. 10, lines 6-15); prompting a user with options for selecting goods and/or services during a current transaction at the facility (Fig. 4, step 411; p. 10, lines 1-6); comparing the options for goods and/or services selected by the user with the user's prestored selections of goods and/or services (Fig. 4, step 413; p. 10, lines 17-22); requiring the user to answer a security-related question if the options for goods and/or services selected by the user are inconsistent with the user's prestored selections of goods and/or services (Fig. 4, step 417; p. 10, line 28 to p. 11, line 8); and thereafter permitting the current transaction only if the user correctly answers said security-related question (Fig. 4, step 415; p. 11, lines 15-19).

Independent Claim 9 recites a method for automatically authorizing a remote point of purchase action with a credit or debit card at facilities which permit such actions. The method comprises the steps of storing selections of goods and/or services made by an authorized user during the previous n transactions with the credit or debit card at the facilities and generating a user profile of goods and/or services in response thereto (Fig. 4, step 409; p. 9, lines 30-34; p. 10, lines 6-15); prompting a current user with options for goods and/or services during a current transaction with the credit or debit card at one of the facilities (Fig. 4, step 411; p. 10, lines 1-6); comparing the options for goods and/or services selected by the current user with the user profile of goods and/or services (Fig. 4, step 413; p. 10, lines 17-22); requiring the current user to answer a security-related question if the options for goods and/or services selected by the current user do not match the user profile of goods and/or services, or are not within a desired range of consistency with the prestored selections of goods and/or services (Fig. 4, step 417; p. 10, line 28 to p. 11, line 8); and then permitting the current transaction only if the current user correctly answers said security-related question (Fig. 4, step 415; p. 11, lines 15-19).

Independent claim 14 recites a system for automatically authorizing a remote point of purchase action at a facility which permits such actions. The system comprises a memory for

storing previous selections of goods and/or services made by an authorized user (p. 6, line 20-22; Fig. 1, disk drive 222); a user terminal adapted to prompt a user with options for goods and/or services during a transaction at the facility (p. 8, lines 29-35; Fig. 3); processor means (p. 6, lines 15-17; Fig. 1, CPU 212) for comparing options for goods and/or services selected by the user at the user terminal during a current transaction with the previous selections of goods and/or services stored in the memory (Fig. 4, step 413; p. 10, lines 19-22); control means for requiring the user to answer a security-related question when the options for goods and/or services selected by the user at the user terminal during the current transaction do not match the previous selections of goods and/or services stored in the memory (Fig. 4, step 417; p. 10, line 28 to p. 11, line 8), or are not within a desired range of consistency with the previous selections of goods and/or services (Fig. 4, step 413; p. 10, lines 22-24), and for thereafter permitting the current transaction only when the user correctly answers said security-related question (Fig. 4, step 415; p. 11, lines 15-19).

Independent claim 18 recites a computer program product, residing on a computer usable medium and having computer usable program means embodied therein (Fig. 2; p. 6, lines 1-3; p. 8, lines 5-9). The computer usable program means comprises means for storing selections of goods and/or services made by an authorized user during a previous transaction (Fig. 4, step 409; p. 9, lines 30-34; p. 10, lines 6-15); means for prompting a user with options for goods and/or services during a current transaction at the facility (Fig. 4, step 411; p. 10, lines 1-6); means for comparing options for goods and/or services selected by the user with the prestored selections of goods and/or services (Fig. 4, step 413; p. 10, lines 17-22); means for requiring the user to answer a security-related question if the options for goods and/or services selected by the user do not match the prestored selections of goods and/or services, or are not within a desired range of consistency with the prestored selections of goods and/or services (Fig. 4, step 417; p. 10, line 28 to p. 11, line 8); and means for permitting the current transaction only if the user correctly answers said security-related question (Fig. 4, step 415; p. 11, lines 15-19).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

I. The Examiner's rejection of Claims 1-4, 6, 8-9, 13-21, 23 and 25 under 35 U.S.C. §103(a) as being unpatentable over *Findley* (U.S. Patent No. 6,108,642) in view of *French et al.* (U.S. Patent No. 6,496,936 – "*French*") is to be reviewed on Appeal.

II. The Examiner's rejection of Claims 5, 10 and 22 under 35 U.S.C. §103(a) as being unpatentable over *Findley* in view of *French* in further view of *Penzias* (U.S. Patent No. 5,311,594) is to be reviewed on Appeal.

ARGUMENTS

I. The Examiner's rejection of Claims 1-4, 6, 8-9, 13-21, 23 and 25 under 35 U.S.C. §103(a) as being unpatentable over *Findley* in view of *French* should be reversed because Appellant's claimed invention is not obvious in view of the combination of *Findley* and *French*.

A. The combination of *Findley* and *French* does not teach, suggest or motivate "requiring the user to answer a security-related question if the options for goods and/or services selected by the user are inconsistent with the user's prestored selections of goods and/or services", as recited by exemplary Claim 1.

On Appeal, the Board reversed/remanded the case to the Examiner "to determine whether prior art is available that would have fairly suggested to one of ordinary skill in the art to modify the *Findley* method to include the step of requiring the user to answer a security-related question if the options for goods and/or services selected by the user are inconsistent with the user's prestored selections of goods and/or services." (Decision, p. 7). With reference to the requiring step of exemplary Claim 1, the Examiner states on page 6 of the present Office Action that *Findley* does not teach "a system that requires a user to answer, correctly, multiple security-related questions if the options for goods and/or services by the user are inconsistent with a user's prestored selection of goods and/or services." On page 6 of the present Office Action, the Examiner cites *French* as supplying the missing teaching in *Findley*. In particular, the Examiner cites *French* at column 6, lines 46-53 as teaching an authentication process which "may invoke association check 24 to evaluate whether the request under consideration is associated with the other requests or attempts, whether recent, concurrent or otherwise. The purpose of the association checks is to filter requests suspected to be fraudulent or part of an attack of some

kind." In addition, the Examiner cites the following from *French* at column 6, line 58 through column 7, line 5:

> In a preferred embodiment, authentication process 10 stores information received through all requests in the authorization database 152, which stores transaction record 112 logging all input received from the user. Using this information, association checks based upon available data are facilitated. For example, if one attempt at access includes a name and an associated social security number, a concurrent or later request with the same name but a different social security number may be denied or flagged for further authentication. [emphasis supplied by Examiner]
>
> Conversely, if the later request includes a different name but the previously submitted social security number, the request may also be denied or flagged for further authentication. Association checks can examine any data provided by the user before or during the preprocessing step 26.

However, the combination of *Findley* and *French* fails to teach, suggest or motivate the step of requiring the user to answer a security-related question if the options for goods and/or services selected by the user are inconsistent with the user's prestored selections of goods and/or services, as claimed in the Appellant's application. Taken in combination with *Findley*, *French* teaches that if a request to access a computer network includes a name and an associated social security number, a concurrent or later request with the same name but different social security number may be denied or flagged for further authentication (col. 6, line 58 to col. 7 line 5). The combination of *Findley* and *French* therefore differs from the Appellant's claimed invention in that an improper match between a name and social security number is what flags a transaction in *Findley/French*, not inconsistencies between a selection of goods and/or services and a prestored selection of goods and/or services, as claimed. Determining whether a name and social security number match each other does not teach or suggest comparing a selection of goods and/or services with a user's prestored selection of goods and/or services to prompt a security-related question.

Put another way, the method in *French* denies or flags an attempt to access a network if a name and number do not match a known name and number combination. In contrast, Appellant's invention reacts to purchasing behavior that deviates from a consistent purchasing pattern. Selections of goods and/or services are used to establish a user's identity. This difference can be

seen on page 6 the Present Office Action, where the Examiner recites a "prestored <u>selection of goods and/or services</u>" as part of the missing teaching in *Findley*, but later refers to the teachings in *French* as "prestored <u>information</u>". The prestored "information" of *French* does not teach, suggest or motivate the prestored "goods and/or services" as claimed. *French* is not prior art that would have fairly suggested to one of ordinary skill in the art to modify the *Findley* method to include the step of requiring the user to answer a security-related question if the options for goods and/or services selected by the user are inconsistent with the user's prestored selections of goods and/or services.

Therefore, the combination of *Findley* and *French* fails to teach, suggest motivate the step of requiring the user to answer a security-related question if the options for <u>goods and/or services</u> selected by the user are inconsistent with the user's <u>prestored selections of goods and/or services</u>, as claimed in the Appellant's application.

B.   The combination of *Findley* and *French* does not teach, suggest or motivate "comparing the options for goods and/or services selected by the user with the user's prestored selections of goods and/or services", as recited by exemplary Claim 1.

With reference to the comparing step of exemplary Claim 1, the combination of *Findley* and *French* does not teach or suggest analyzing the actual goods and/or services being selected by the user. On page 3 of the present Office Action, the Examiner cites the Abstract of *Findley* as teaching the comparing step as follows: "a logic subsystem that compares the purchase request record of the current purchase request with the purchase record of the previous purchase request". However, *Findley* further teaches the comparison is based on criteria such as a telephone number (origin) and/or card number for the current purchase request matching a <u>telephone number</u> (origin) and/or <u>card number</u> for a previous legitimate purchase request (col. 3, lines 53-57; Abstract), a telephone number (origin) matching a number in a "negative file" (col. 3, lines 39-44), or a "history factor" that takes into account <u>dollar amount</u> or <u>duration since last purchase</u> (col. 3, line 66 to col. 4, line 25). *Findley* does not teach comparing a selection of <u>goods and/or services</u> by the user with a prestored selection of <u>goods and/or services</u> by the user. Thus, *Findley* analyzes an entirely different set of criteria for detecting fraud than Appellant.

At best, *Findley* observes the "merchandise category" (column 4, lines 49-61) in which the goods may be classified. However, *Findley* teaches one skilled in the art to guard against "repetitive theft from the same merchandise category" (i.e., using repeated purchases from a merchandise category to flag a transaction as fraudulent). This teaches away from Appellant's invention, which uses <u>inconsistencies</u> in selections of goods and/or services to require a user to answer a security-related question. *Findley* is designed to "limit its exposure to repetitive theft from the same merchandise category." Column 4, lines 59-61. In direct contrast, Appellant's invention is designed to encourage and protect repetitive purchases of the same merchandise. Put another way, *Findley's* system and method triggers a security hold on an account if the behavior of the user becomes too consistent, where as Appellant's system and method reacts to behavior that deviates from a consistent pattern.

French discloses a network authentication system that provides verification of the identity or other attributes of a network user to conduct a transaction (Abstract). However, *French* does not teach or suggest the step of comparing the options for goods and/or services selected by the user with the user's prestored selections of goods and/or services, as claimed in Appellant's application. *French* teaches comparing a name and an associated social security number used to request access to a computer network to the name and social security number for a concurrent or later request. If the name and social security number do not match, the request for access may be denied or flagged for further authentication (col. 6, line 58 to col. 7 line 5). Comparing a <u>name</u> and <u>social security number</u> to a previously used name and social security number pair does not teach, suggest or motivate comparing a selection of <u>goods and/or services</u> with a user's <u>prestored selection of goods and/or services</u>.

Because neither of *Findley* and *French* teaches, suggests or motivates comparing options for goods and/or services with a prestored selection of goods and/or services, the combination of *Findley* and *French* fails to teach, suggest or motivate the step of comparing the options for goods and/or services selected by the user with the user's prestored selections of goods and/or services, as claimed in the Appellant's application.

II.   The Examiner's rejection of Claims 5, 10 and 22 under 35 U.S.C. §103(a) as being unpatentable over *Findley* in view of *French* in further view of *Penzias* (U.S. Patent No. 5,311,594) should be reversed because Appellant's claimed invention is not obvious in view of the combination of *Findley, French* and *Penzias*.

A.   The combination of *Findley, French and Penzias* does not teach, suggest or motivate "storing selections of goods and/or services made by the user while using a plurality of credit or debit cards, wherein each of the credit or debit cards has a differenct account number", as recited by exemplary Claim 5.

On Appeal, the Board reversed/remanded the case to the Examiner "to determine whether prior art is available that would have fairly suggested to one of ordinary skill in the art to modify the *Findley* method to include the step of requiring the user to answer a security-related question if the options for goods and/or services selected by the user are inconsistent with the user's prestored selections of goods and/or services." (Decision, p. 7). The Examiner states on page 7 of the present Office Action that, "The system of *Findley* in view of *French et al.*, as described above does not teach a system that stores selections made with a plurality of credit cards." The Examiner cites *Penzias* as supplying the missing teaching in *Findley*. In particular, the Examiner cites Figure 5 of *Penzias* as teaching, "a system of providing an individual protection for remote purchases; in particular the system applies to multiple cards with different account numbers."

However, the combination of *Findley, French and Penzias* fails to teach, suggest or motivate the step of storing selections of goods and/or services made by the user while using a plurality of credit or debit cards, as claimed in the Appellant's application. Taken in combination with *Findley* and *French, Penzias* teaches an exemplary structure for storing information in a card recognition database 413 (col. 7, lines 63-64). The card recognition database 413 is used to determine the issuer of a card from the digits supplied by a user (col. 6, lines 46-49). The combination of *Findley, French and Penzias* therefore differs from the Appellant's claimed invention in that the information stored in card recognition database is a list of card issuing companies, not selections of goods and/or services made by the user while using a plurality of credit or debit cards, as claimed.

Therefore, the combination of *Findley* and *French* fails to teach, suggest motivate the step of storing selections of goods and/or services made by the user while using a plurality of credit or debit cards, as claimed in the Appellant's application.

B.   *Penzias* does not fairly suggest to one of ordinary skill in the art to modify the combination of *Findley* and *French* to include the step of storing selections of goods and/or services made by the user while using a plurality of credit or debit cards, as recited by exemplary Claim 5.

On page 7 of the present Office Action, the Examiner states, "It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the memory subsystem of Findley to receive information sets on previous and current purchases made by a user from a plurality of credit cards, as taught by Penzias in order to provide protection and security for all of a customer's credit and debit cards." However, *Penzias* teaches an apparatus for use in processing calling card transactions (col. 5, lines 57-59), and in particular a card recognition database that is used to determine the issuer of a calling card from the digits supplied by a calling party (col. 6, lines 46-49). *Penzias* is directed toward preventing fraud in purchasing long distance telephone calls with calling cards. A user is not prompted with options for selecting goods and/or services, as claimed, since only one service is being provided in *Penzias* (i.e., a long distance phone call). Therefore, *Penzias* does not fairly suggest to one of ordinary skill in the art to modify the combination of *Findley* and *French* to include the step of storing selections of goods and/or services made by the user while using a plurality of credit or debit cards, as claimed.
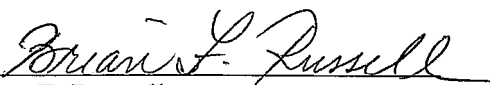
C.   Claim 5, 10 and 22 depend from Claims 1, 9 and 14, respectively. The disposition of the rejection of Claims 1, 9 and 14 is further dispositive of the rejection of Claims 5, 10 and 22.

III.   Conclusion.

It is respectfully urged that the claims are in condition for allowance and favorable action is requested. In that the fee of $320 was previously paid for the Appeal Brief submitted on August 28, 2003 and the fee of $180 was previously paid for the Appeal Brief submitted on June 28, 2007, no additional fees are believed to be required. However, if any fees are required to further the prosecution of the Application, please charge the additional fees to **IBM Corporation Deposit Account No. 09-0447**.

Respectfully submitted,

Brian F. Russell
Reg. No. 40,796
DILLON & YUDELL, LLP
8911 N. Capital of Texas Hwy., Suite 2110
Austin, Texas 78759
(512) 343-6116

ATTORNEY FOR APPELLANT

CLAIMS APPENDIX

1.　　A method for automatically authorizing a remote point of purchase action at a facility which permits such actions, said method comprising the steps of:

　　　storing selections of goods and/or services made by an authorized user during a previous transaction;

　　　prompting a user with options for selecting goods and/or services during a current transaction at the facility;

　　　comparing the options for goods and/or services selected by the user with the user's prestored selections of goods and/or services;

　　　requiring the user to answer a security-related question if the options for goods and/or services selected by the user are inconsistent with the user's prestored selections of goods and/or services; and

　　　thereafter permitting the current transaction only if the user correctly answers said security-related question.

2.　　The method of claim 1 wherein the step of storing selections comprises generating a user profile of selections of goods and/or services made by the user during the last n transactions.

3.　　The method of claim 1 wherein the step of storing selections comprises storing selections of goods and/or services made by the user at a plurality of facilities.

4.　　The method of claim 1 wherein the step of storing selections comprises storing selections of goods and/or services made by the user while using a credit or debit card.

5.　　The method of claim 1 wherein the step of storing selections comprises storing selections of goods and/or services made by the user while using a plurality of credit or debit cards, wherein each of the credit or debit cards has a different account number.

6.   The method of claim 1 wherein the step of requiring the user to answer a security-related question is not required if the user's current selections match the prestored selections or are within a desired range of consistency with the prestored selections.

8.   The method of claim 1 wherein the step of requiring the user to answer a security-related question entails requiring the user to answer a plurality of security-related questions, and wherein the step of permitting the current transaction requires the user to answer each of the security-related questions correctly.

9.   A method for automatically authorizing a remote point of purchase action with a credit or debit card at facilities which permit such actions, said method comprising the steps of:

storing selections of goods and/or services made by an authorized user during the previous n transactions with the credit or debit card at the facilities and generating a user profile of goods and/or services in response thereto;

prompting a current user with options for goods and/or services during a current transaction with the credit or debit card at one of the facilities;

comparing the options for goods and/or services selected by the current user with the user profile of goods and/or services;

requiring the current user to answer a security-related question if the options for goods and/or services selected by the current user do not match the user profile of goods and/or services, or are not within a desired range of consistency with the prestored selections of goods and/or services; and then

permitting the current transaction only if the current user correctly answers said security-related question.

10.   The method of claim 9 wherein the step of storing selections comprises storing selections of goods and/or services made by the authorized user while using a plurality of credit or debit cards at various ones of the facilities, wherein each of the credit or debit cards has a different account number.

13.   The method of claim 9 wherein the step of requiring the current user to answer a security-related question entails requiring the current user to answer a plurality of security-related questions, and wherein the step of permitting the current transaction requires the current user to answer each of the security-related questions correctly.

14.   A system for automatically authorizing a remote point of purchase action at a facility which permits such actions, comprising:

a memory for storing previous selections of goods and/or services made by an authorized user;

a user terminal adapted to prompt a user with options for goods and/or services during a transaction at the facility;

processor means for comparing options for goods and/or services selected by the user at the user terminal during a current transaction with the previous selections of goods and/or services stored in the memory;

control means for requiring the user to answer a security-related question when the options for goods and/or services selected by the user at the user terminal during the current transaction do not match the previous selections of goods and/or services stored in the memory, or are not within a desired range of consistency with the previous selections of goods and/or services, and for thereafter permitting the current transaction only when the user correctly answers said security-related question.

15.   The system of claim 14 wherein the memory generates a user profile of selections of goods and/or services made by the user during the last *n* transactions.

16.   The system of claim 14 wherein the user terminal is a device for reading a credit or debit card.

17.   The system of claim 14 wherein the control means requires the user to correctly answer a plurality of security-related questions.

18.   A computer program product, residing on a computer usable medium and having computer usable program means embodied therein, said computer usable program means comprising:

means for storing selections of goods and/or services made by an authorized user during a previous transaction;

means for prompting a user with options for goods and/or services during a current transaction at the facility;

means for comparing options for goods and/or services selected by the user with the prestored selections of goods and/or services;

means for requiring the user to answer a security-related question if the options for goods and/or services selected by the user do not match the prestored selections of goods and/or services, or are not within a desired range of consistency with the prestored selections of goods and/or services; and

means for permitting the current transaction only if the user correctly answers said security-related question.

19.   The computer program product of claim 18 wherein the means for storing selections generates a user profile of selections of goods and/or services made by the user during the last n transactions.

20.   The computer program product of claim 18 wherein the means for storing selections stores selections of goods and/or services made by the user at a plurality of facilities.

21.   The computer program product of claim 18 wherein the means for storing selections stores selections of goods and/or services made by the user while using a credit or debit card.

22.   The computer program product of claim 18 wherein the means for storing selections stores selections of goods and/or services made by the user while using a plurality of credit or debit cards, wherein each of the credit or debit cards has a different account number.

23.   The computer program product of claim 18 wherein the means for requiring the user to answer a security-related question is predicated on the user's current selections of goods and/or services being substantially inconsistent with the prestored selections of goods and/or services.

25.   The computer program product of claim 18 wherein the means for requiring the user to answer a security-related question entails requiring the user to answer a plurality of security-related questions, and wherein the means for permitting the current transaction requires the user to answer each of the security-related questions correctly.

EVIDENCE APPENDIX

Other than the Office Actions, responses, briefs and answers already of record, no additional evidence has been entered by Appellant or the Examiner in the above-identified application which is relevant to this appeal.

RELATED PROCEEDINGS APPENDIX

There are no related proceedings as described by 37 C.F.R. §41.37(c)(1)(x) know to Appellant, Appellant's legal representative, or assignee.